ABSTRACT OF THE DISCLOSURE

The average amplitude of the samples in a signal sample sequence X in a floating-point format is determined for each frame. If the average amplitude is greater than a predetermined value, an integer formatting part 12 converts the sequence X into a signal sample sequence Y in a 16-bit integer format by truncation, a compressing part 13 codes the sequence Y to output a code sequence Ca, a difference producing part 14 produces a difference signal Z that corresponds to the difference between the signal sample sequence X and a sequence Y' in the floating-point format converted from the sequence Y, and a compressing part 17 performs entropy coding on the least significant (23-n) bits of a mantissa M of the difference signal Z, which is determined by the number of bits n following the most significant "1" in each sample in the sequence Y, and outputs a code sequence Cb. If the average amplitude is not greater than the predetermined value, the sequence X is directly losslessly coded by a compressing part 121. A code Cd, which indicates which coding is selected, is output.